

Notice of Allowability

Application No.

09/667,091

Examiner

Trisha Vu

Applicant(s)

LIANG, PING

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2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 08-17-05.
2. ☒ The allowed claim(s) is/are 1,3,5,6,8-11,13-19,21-25,28,29 and 31-35.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 11-09-05.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

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EXAMINER'S AMENDMENT and REASONS FOR ALLOWANCE

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with James G. O'Neil (Reg. No. 22,858) on 11-08-05 and Tejinder Singh (Reg. No. 39,535) on 11-09-05.

The application has been amended as follows:

In the claims:

In claim 1, line 19 (last line): delete "endpoints." and insert in its place -- endpoint; wherein the second power conversion circuit includes a voltage sensor for sensing a voltage signal on the first USB connector and the sensed voltage signal is supplied to a controller of the first power conversion circuit that determines whether the sensed voltage signal should be boosted, reduced or passed through and if the sensed voltage signal is to be boosted, then the controller commands a first switch to send the sensed voltage signal to a charge pump that provides a boosted voltage to a second switch. --.

In claim 5, line 2: delete "Claim 4" and insert in its place -- claim 1 --.

In claim 6, line 2: delete "Claim 4" and insert in its place -- claim 1 --.

In claim 35, line 2: delete "compute" and insert in its place -- computer--.

2. Claims 1, 3, 5, 6, 8-11, 13-19, 21-25, 28, 29, and 31-35 are allowed.

The following is an examiner's statement of reasons for allowance:

Claim 1 includes the limitation of only the power conversion circuit of the mobile computing device or the power conversion circuit of the expansion module performs power conversion specified by convention, wherein the power conversion circuit of the expansion module includes a voltage sensor for sensing a voltage signal on the connector which is used to determine whether the sensed voltage signal should be boosted, reduced or passed through and if the sensed voltage signal is to be boosted, then commanding a first switch to send the sensed voltage signal to a charge pump that provides a boosted voltage to a second switch, which is not shown by the prior art of record in the combination as disclosed and claimed.

Claims 18 and 28 include the limitation of only the power conversion circuit of the mobile computing device or the power conversion circuit of the expansion module performs power conversion specified by convention, wherein the power conversion circuit of the mobile computing device includes a voltage sensor for sensing a voltage signal on the connector which is used to determine whether the sensed voltage signal should be boosted, reduced or passed through and if the sensed voltage signal is to be boosted, then commanding a first switch to send the sensed voltage signal to a charge pump that provides a boosted voltage to a second switch, which is not shown by the prior art of record in the combination as disclosed and claimed.

The examiner interpreted the claims in light of the specification and further in view of Applicant's persuasive argument that "Depending on which side need power conversion, the power conversion circuit performs the power conversion" (pages 12-13 of the Remarks) and in

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view of Applicant's amendment to the claims to better clarify the implementation of the power conversion circuit.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Kuba (US Patent 6,549,958) teaches configuring the electronic device to be a USB host or a USB device.

Bork et al. (US Patent 6,633,932) teaches power conversion.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trisha Vu whose telephone number is 571-272-3643. The examiner can normally be reached on Mon-Thur and alternate Fri 8:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571-272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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RERANA PERVEEN
SUPERVISORY PATENT EXAMINER
11/10/05